

**New Program Proposal
Associate of Health Science
Major in Biotechnology
Greenville Technical College**

Summary

Greenville Technical College requests approval to offer a program leading to the Associate degree in Health Sciences with a major in Biotechnology, to be implemented in Spring 2007. The proposed program is designed to prepare students for entry-level bio-technician positions in the Greenville Technical College's service area and to meet the needs of medical, life science, and pharmaceutical research and development industries.

The State Technical College System Board approved the new program on July 25, 2006, and the proposal was received by the Commission on August 14, 2006. The proposal was reviewed, and approved, by the Advisory Committee on Academic Programs (ACAP) at its meeting on October 11, 2006.

The biotechnology industry generates considerable revenues as one of the fastest growing segments of the American economy and is expected to employ nearly 815,000 workers by 2007 (The Department of Labor Fact Sheet, www.doleta.gov). The 2003 Life Sciences Act supports increased incentives, research, and capital, so the 39 biotechnology companies that call South Carolina home will need a well-trained, highly qualified work force to meet industry demands(<http://www.scommerce.com>).

The proposal states that a recent needs assessment shows a growing demand for employees with associate degrees to work as quality control technicians, manufacturing technicians, laboratory assistants, research technicians, and bioprocess technicians. There are numerous major employers of biotechnicians in the Greenville area and demand is expected to increase at the Greenville Hospital System. A 2005 survey conducted by Greenville Technical College of biotech employers in Greenville County estimated a need for 46 full-time positions and 4 part-time positions over the next three years.

According to the proposal, Greenville Technical College currently offers a certificate program in Biotechnology which was the first such program in the State. Current students will transfer into the proposed Associate Degree in Health Science with a major in Biotechnology program. Greenville Technical College's

certificate in Biotechnology began in Spring 2006. Additionally, students are able to earn elective credit in Biotechnology as part of the Associate in Science Degree. The proposed Associate of Health Science with a major in Biotechnology offers more course options and more emphasis on laboratory procedures to better meet industry needs than the Associate of Science with electives in Biotechnology degree allowed. Greenville has an active Advisory Board for Emerging Life Sciences with representatives from Greenville Hospital System, Clemson University, manufacturing, and the private sector which will serve the proposed program. No similar programs currently exist in the South Carolina Technical College System.

Admission to the Associate Degree in Health Science Degree with a major in Biotechnology program will require the entering student to have a high school diploma (or equivalent), one unit of high school biology or chemistry with a grade of "C" or better, acceptable scores on the college placement test (Asset or Compass) or acceptable SAT or ACT scores, and the submission of official transcripts from all high school and colleges attended.

Total estimated headcount enrollment in Fall 2006 is estimated to be 24 (24 FTE) increasing to 36 (36 FTE) in Fall 2009. New enrollment is estimated to be 12 (12 FTE) in the Fall 2006 and a total of 36 (36 FTE) by Fall 2009.

The proposed program will require between 71 to 73 credit hours of academic coursework, including the addition of four new courses to Greenville Technical College's 2007-2008 course catalog. Implementation of the program will require the addition of these four new courses to the SCTCS Catalog of Approved Courses (CAC).

No accreditation, approval, licensure, or certification programs currently exist for this program.

One part-time faculty member with a Ph.D. in Genetics will be hired to deliver the program and one adjunct instructor currently teaching biology will be transferred to the biotechnology program. The College currently has one full-time faculty member who will serve as Department Head and program director. This individual will be granted administrative release to conduct required administrative duties. No new administrative assistant will be needed. Three full-time faculty will devote 100% of their time to teaching and advising students. By 2009-10, total faculty dedicated to teaching will be two (1.5 FTE) of instructor rank, one (0.1 FTE) administrator and one (0.2 FTE) staff member providing clerical support.

No new physical plant and no new equipment will be needed to implement this program.

Greenville Technical College anticipates spending \$3,000 per year for the next three years to purchase print titles, e-book titles, and media titles to support this program. According to the proposal, the Greenville Technical College library collection contains over 65 different online periodical databases. The print titles in the Library collection for biotechnology number at least 45 and the online periodical databases offer many choices for articles and current news.

In the first year, estimated costs will be \$127,384 rising to \$364,125 in the third year. New costs during the first three years of the program are estimated to total \$99,972 including \$45,972 in faculty salaries, \$45,000 for supplies and materials and \$9,000 for library resources.

Shown below are the estimated Mission Resource Requirement (MRR) costs to the State, and new costs not funded by the MRR associated with implementation of the proposed program for its first three years. Also shown are the estimated revenues projected under the MRR and the Resource Allocation Plan as well as student tuition.

These data demonstrate that if Greenville Technical College meets the projected student enrollments shown in the proposal, the new program will not cover costs by the third year (2009-10) of the program. Nevertheless, the College indicates it has the revenues to implement the program with quality.

Year	Estimated MRR Cost for Proposed Program	Extraordinary (Non-MRR) Costs for Proposed Program	Total Costs	State Appropriation	Tuition	Total Revenue
2007-08	\$127,384	\$0	\$127,384	N/A	\$45,969	\$45,969
2008-09	\$307,043	\$0	\$307,043	\$48,839	\$111,100	\$159,939
2009-10	\$364,125	\$0	\$364,125	\$117,616	\$132,176	\$249,792

In summary, Greenville Technical College proposes to offer a new program leading to an Associate Degree in Health Science with a major in Biotechnology,

to be implemented in Spring 2007. The proposed program is designed to meet the needs of medical, life science, and pharmaceutical research and development industries for entry level bio-technician positions in the Greenville Technical College's service area.

Recommendation

The Committee on Academic Affairs and Licensing recommends that the Commission approve Greenville Technical College's proposed program leading to the Associate Degree in Health Science with a major in Biotechnology, to be implemented in Spring 2007, provided that no additional "unique cost" or other special state funding be required or requested.